

## REMARKS

Claims 1-30 are pending. Claims 1, 7, 22, and 27 are being amended. Claims 16 is being canceled without prejudice or disclaimer of the subject matter recited therein. Claim 31 is being added. No new matter is being added.

Appreciation is expressed to Examiner Maria F. Guerrero for the interview with Applicants Attorney David G. Dolezal on January 13, 2005. During the interview, the proposed amendments and prior art were discussed.

Claims 1-30 stand objected to due to the "dose being in particles per centimeter squared." The language "particles per centimeter squared" may also be written as "particles per  $\text{cm}^2$ ".

Regarding the objection in section 5 of the Office Action to claim 1 due to the "wherein, if" statements, Applicants respectfully submit that the "if" statements in claim 1 provide limitations that are based upon whether a linewidth of the polysilicon line falls into those dimensions set forth in those statements.

Claims 1-9, 13-16, 22, and 26-27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Takasou, U.S. Pat. No. 6,274,447 (Takasou) in view of Yu, U.S. Pat. No. 6,514,829 (Yu). Claims 7-12, 15, 17-25, and 28-30 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al., U.S. Patent No. 6,010,952 (Tsai) in view Yu.

Claims 1, 7, and 22 have been amended. At least one example of support for these amendments can be found on page 3, lines 4-5 of the specification.

Takasou, Tsai, and Yu, either alone or in combination, do not disclose or suggest implanting xenon through the dielectric liner layer into the polysilicon line to amorphize an upper portion of the polysilicon line, all as recited by independent claim 1.

Section 6 of the Office Action states that Takasou discloses providing a polysilicon line over a semiconductor substrate and implanting xenon into the polysilicon line to amorphize an upper portion of the polysilicon line. Section 6 further cites Figure 3, col. 3, lines 17-20, col. 5, lines 23-25, and col. 6, lines 23-44 in support. Referring to these portions of Takasou, they do not disclose implanting through a dielectric liner layer. See for example, col. 6, lines 24-28 of Takasou where it states that argon ions are implanted after "any natural oxide film or the like" has been removed.

Section 7 of the Office Action states that Tsai shows implanting xenon into a polysilicon line to amorphize an upper portion of the polysilicon line and cites col. 2, lines 65-67, col. 3, lines 1-15, and col. 4, lines 5-7 for support. However, these cited portions of Tsai do not state that ions are implanted through a dielectric liner layer. See for example col. 3, lines 4-5 of Tsai where it states "implanting the exposed portions." Accordingly claim 1 is allowable over Takasou, Tsai, and Yu.

For reasons similar to those set forth above with respect to claim 1, Takasou, Tsai, and Yu, either alone or in combination, do not disclose or suggest implanting xenon through the dielectric liner into the polysilicon line to amorphize an upper portion of the polysilicon line, all as recited in independent claim 7. Accordingly, independent claim 7 is allowable over Takasou, Tsai, and Yu.

For reasons similar to those set forth above with respect to claim 1, Takasou, Tsai, and Yu, either alone or in combination, do not disclose or suggest implanting particles having an atomic mass at least equal to that of xenon through the liner into the polysilicon line, all as recited by independent claim 22. Accordingly, independent claim 22 is allowable over Takasou, Tsai, and Yu.

Claim 31 is being added. At least some examples of support for the limitations of this claim are found in Figure 1, page 3, lines 1-8 and lines 18-19, page 4, lines 8-9, and page 5, lines 3-5 of the specification.

For reasons similar to those set forth above with respect to claim 1, Takasou, Tsai, and Yu, either alone or in combination, do not disclose or suggest implanting particles having an atomic mass at least equal to that of xenon through the liner into the polysilicon line to amorphize an upper portion of the polysilicon line, all as recited in claim 31.

Each dependent claim depends from an independent claim and is allowable for at least this reason.

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned.

If Applicant has overlooked any additional fees, or if any overpayment has been made, the Commissioner is hereby authorized to credit or debit Deposit Account 503079, Freescale Semiconductor, Inc..

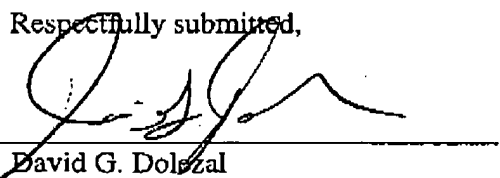
Respectfully submitted,

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